

The View from Inside the System: How Police Explain Their Response to Sexual Assault

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Abstract Prior research has documented the problematic community response to sexual assault: the majority of sexual assaults reported to police are never prosecuted. Social dominance theory suggests that this response is a form of institutional discrimination, intended to maintain existing social structures, and that police personnel likely draw upon shared ideologies to justify their decision-making in sexual assault case investigations. This study drew upon social dominance theory to examine how police justified their investigatory decisions to identify potential leverage points for change. The study revealed that the likelihood of a case referral to the prosecutor increased with each additional investigative step completed; of the different types of justifications provided by police for a less-than-thorough investigative response and stalled case, blaming the victim for the poor police investigation proved to be the most damaging to case progression; and the type of explanation provided by police was impacted by specific case variables. As suggested by social dominance theory, the study demonstrates that police rely on several different mechanisms to justify their response to sexual assault; implementing criminal justice system policies that target and interrupt these mechanisms has the potential to improve this response, regardless of specific case factors.

Keywords Sexual assault · Police investigations · Police decision making · Social dominance theory · Path analysis

Introduction

Sexual assault is a pervasive problem, as epidemiological data suggest that one-in-five women is raped in her lifetime (Black et al., 2011). Though postassault resources and services are made available to survivors in many communities, there are systemic problems in many formal response systems. Specifically, prior research has documented that the vast majority of sexual assault cases reported to the criminal justice system “are still falling through the cracks” never reach prosecution (Campbell et al., 2014, p. 620). Law enforcement personnel play a crucial role in the criminal justice system response to sexual assault as they are the first criminal justice system representative to come in contact with the victim. In this role, they act as a sort of gatekeeper, able to exercise considerable discretion and “fundamental control” in the investigation of a reported sexual assault, up to and including their decision to refer the case on to prosecution (Fisher, 1993, p. 3; see Tasca, Rodriguez, Spohn & Koss, 2013). The vast majority of sexual assaults reported to police (see Baumer & Lauritsen, 2010; Bosick, Rennison, Gover & Dodge, 2012 for rates of reporting) never transition from the initial phase of the police investigation to prosecution (Campbell et al., 2014; Lonsway & Archambault, 2012). These high rates of sexual assault case attrition within the criminal justice system have been documented readily, in addition to the identification of specific legal and extralegal factors that predict such a response (e.g., see Campbell, Bybee, Ford & Patterson, 2009; Shaw & Campbell, 2013; Tasca

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et al., 2013). The current literature base begs questions as to why the criminal justice system responds in this way and how criminal justice system personnel are able to justify their inaction, particularly police, as the majority of sexual assault cases drop out of the criminal justice system while under their purview. Social dominance theory suggests that the criminal justice system response to sexual assault is a form of institutional discrimination, intended to maintain existing social structures and the disproportionate allocation of social value across groups (Sidanius & Pratto, 2001, 2011). Social dominance theory was used as a guiding framework for this study in order to examine empirically how such acts are justified. Through this lens, this study examined the mechanisms by which police explain their response to sexual assault and, in doing so, identified leverage points for systemic change.

The Police Response to Sexual Assault

The criminal justice system response to sexual assault is a complex process (e.g., see Bouffard, 2000; Campbell, 2008; Martin, 2005) consisting of two interrelated, yet distinct stages: the investigation, carried out by law enforcement personnel, and prosecution, carried out by the prosecutor's office. In most jurisdictions, police are responsible for facilitating the transition of sexual assault cases from the investigation stage to the prosecution stage by referring the case to the prosecutor's office for the consideration of charges against the identified suspect. This anticipated response, however, is in juxtaposition to what transpires in practice; 73–93% of reported sexual assault cases are never prosecuted as they are rarely referred by the police to the prosecutor (Campbell et al., 2014; Lonsway & Archambault, 2012). As a result, the expected two-stage criminal justice system response is frequently truncated to a one-stage police response in practice.

Prior research, though somewhat limited, has examined further what transpires during the police investigation in an effort to understand better why the majority of sexual assault cases never reach prosecution. Such studies have primarily focused on to what extent characteristics of the victim and assault impact police decision-making and overall case progression (see Table 1 for a summary of this research). This body of research has helped in identifying trends in the police response to sexual assault; for example, that teenage victims, young adult victims, and victims with disabilities are less likely to be believed (Campbell, Greeson, Bybee & Fehler-Cabral, 2012; Heenan & Murray, 2006; Kelly, Lovett & Regan, 2005; Kerstetter, 1990; LaFree, 1981; Rose & Randall, 1982; Schuller & Stewart, 2000; Spohn & Spears,

1996; Triggs, Mossman, Jordan & Kingi, 2009), while cases involving a weapon, full penetration, victim injuries, and crime co-occurrence are more likely to be classified as "legitimate," receive additional investigative effort, and move forward to prosecution (Addington & Rennison, 2008; Campbell et al., 2009; Frazier & Haney, 1996; LaFree, 1981; Patterson & Campbell, 2012; Rose & Randall, 1982). This body of research suggests that such trends may be undergirded by cultural stereotypes of what constitutes a "real rape" (see Lonsway & Archambault, 2012).

Taken together, these programs of research have advanced our understanding of the criminal justice system response to sexual assault; we know that there are high rates of attrition across *all* sexual assault cases, as well as variation in investigational effort and case progression *between* cases based on specific factors of the case. Yet, this body of research still does not illuminate how police explain their less-than-thorough response—the mechanisms by which they are able to justify referring only 7–27% of reported sexual assaults to the prosecutor and their tendency to respond in ways that discount the experiences of specific victims. If we identify the specific mechanisms used by police to explain why select cases are investigated and progress through the criminal justice system while others do not, we can target those mechanisms with change interventions and attempt to improve the criminal justice system response to sexual assault.

Examining the Police Response Via Social Dominance Theory

Social dominance theory (SDT) provides an integrated conceptual framework for analyzing the police response to sexual assault, including the identification of potential explanatory mechanisms used by police in the process. SDT is a comprehensive theory for understanding systems of oppression. SDT explains that there are individual and institutional acts of discrimination—actions, policies, rules, and roles that support the unequal allocation of social value across groups (e.g., some groups have good housing, health, and access to resources; others have relatively poor housing, health, and limited access to resources) (Sidanius, Liu, Shaw & Pratto, 1994; Sidanius & Pratto, 2001, 2011). These acts intend to maintain and enhance social group hierarchies and are justified through the use of legitimizing myths (LMs)—shared ideologies that justify acts by appealing to morality and intellect, regardless of if they are valid (Sidanius & Pratto, 2001; Sidanius et al., 1994).

Social dominance theory has long been considered a useful theoretical model for studying the criminal justice

Table 1 Summary of prior literature on police investigations of sexual assault

Domain assessed	Key findings
Victim characteristics	<p>Cases with teenage victims, young adult victims, and victims with disabilities^a are...</p> <ul style="list-style-type: none"> • More likely to be viewed as “suspicious” and deemed unfounded • Less likely to be classified as a rape and referred to the prosecutor <p>Cases with White victims are...</p> <ul style="list-style-type: none"> • Treated the same as cases with victims of color^b • Taken more seriously, less likely to be deemed unfounded, and more likely to be prosecuted^c • Less likely to have a suspect identified, more likely to be deemed unfounded, and less likely to have its corresponding rape kit submitted to a crime lab for analysis^d
Assault characteristics	<p>Cases in which the perpetrator is a stranger to the victim^e are...</p> <ul style="list-style-type: none"> • More likely to be thoroughly investigated and less likely to be deemed unfounded • Less likely to have a suspect identified or arrested, and be referred to the prosecutor <p>Cases involving multiple perpetrators^f are...</p> <ul style="list-style-type: none"> • Less likely to have their corresponding rape kit submitted to a crime lab for analysis • Less likely to be referred to the prosecutor <p>Cases in which the victim used drugs or alcohol during or prior to the assault^g are...</p> <ul style="list-style-type: none"> • Less likely to have their cases classified as rape, a suspect identified or arrested, and be referred to the prosecutor • More likely to be deemed unfounded <p>Cases involving a weapon, full penetration, victim injuries, and crime co-occurrence^h are...</p> <ul style="list-style-type: none"> • More likely to be classified as a rape, “legitimate,” and “prosecutorial” • More likely to have a suspect questioned or arrested, its corresponding rape kit submitted to a crime lab for analysis, and move forward to prosecution

^aCampbell et al., 2012; Heenan & Murray, 2006; Kelly et al., 2005; Kerstetter, 1990; LaFree, 1981; Rose & Randall, 1982; Schuller & Stewart, 2000; Spohn & Spears, 1996; Triggs et al., 2009.

^bAlderden & Ullman, 2012; Bouffard, 2000; Campbell et al., 2009; Kerstetter, 1990.

^cBlack, 1978; Frohmann, 1991; LaFree, 1981; Reiss, 1971; Rose & Randall, 1982; Smith & Klein, 1983; Wriggins, 1983.

^dBryden & Lengnick, 1997; Horney & Spohn, 1996; Shaw & Campbell, 2013.

^eBachman, 1998; Campbell et al., 2009; Kerstetter, 1990; LaFree, 1989; Spohn & Spears, 1996; Tasca et al., 2013.

^fShaw & Campbell, 2013; Tasca et al., 2013.

^gCampbell et al., 2009; Heenan and Murray, 2006; Kelly et al., 2005; Kerstetter, 1990; LaFree, 1981; Rose & Randall, 1982; Schuller & Stewart, 2000; Tasca et al., 2013; Triggs et al., 2009.

^hAddington & Rennison, 2008; Campbell et al., 2009; Frazier & Haney, 1996; Patterson & Campbell, 2012; Rose & Randall, 1982; LaFree, 1981.

system; one of the original theorists credits his own interactions with the criminal justice system as the “building blocks of SDT” (Sidanius & Pratto, 2011:6). Within this theoretical framework, “the criminal justice system is one of the most important hierarchy-enhancing social institutions” (Sidanius et al., 1994, p.340). SDT notes that whereas criminal justice system policies and rhetoric purport “equality before the law,” its practices do not uphold this fundamental principle (Sidanius et al., 1994, p.340). Instead, criminal justice system actions frequently constitute institutional discrimination, as

individuals are treated differently by the system based on their group identity.

This disconnect between the policies and rhetoric of the criminal justice system, and its institutional practices, can be applied readily to the criminal justice system response to sexual assault, a crime most frequently perpetrated by one social group—men—against another—women (Black et al., 2011). Lisak (2008:1) presents the paradox:

In the hierarchy of violent crimes, as measured by sentencing guidelines, rape typically ranks only second to

homicide, and in some cases ranks even higher. . . such sentencing structures serve as a message from the community: “we view rape as an extremely serious crime.” At the same time, however, the number of rapes that are actually prosecuted is a tiny fraction of the number committed in any year. . . among those [sexual assaults] that are reported, attrition at various levels [of the criminal justice system] dramatically reduces the number of actual prosecutions. Ultimately, only a tiny handful of rapists ever serve time for rape, a shocking outcome given that we view rape as close kin to murder in the taxonomy of violent crime.

The high rates of sexual assault case attrition, as highlighted by Lisak (2008) and documented in the literature, could be considered a concrete manifestation of institutional discrimination within the SDT framework. Following this reasoning, it can then be posited that police use LMs—shared ideologies that rely on morality or intellect—to justify their actions and inaction in sexual assault case investigations. If the specific LMs used by police to justify their response can be identified, change efforts that target these justifications can be developed in order to improve the criminal justice system response to sexual assault.

Current Study and Exploratory Approach

To improve the criminal justice system response to sexual assault, it is essential to examine how police characterize sexual assault and sexual assault survivors, and how such characterizations impact their case decisions. This requires cataloging the different types of justifications provided by law enforcement personnel in the course of a sexual assault investigation, and then examining empirically if the provided justifications predict the level of investigational effort put into the case and the case outcome. In a prior study, Shaw et al. (2016) examined police records corresponding to unsubmitted sexual assault kits (SAKs) found in a Midwestern, large urban police evidence storage facility and developed a typology of justifications for lack of investigational effort and stalled cases. In this analysis, Shaw and colleagues (2016) identified three types of justifications: circumstantial, characterological, and investigatory blame justifications. Circumstantial justifications minimized the rape based on circumstances of the assault (e.g., the victim was not injured); characterological justifications minimized the rape based on characteristics of the victim (e.g., the victim “is mental.”); and investigatory blame justifications blamed the victim for a less-than-thorough police investigation (e.g., the victim was uncooperative). It is possible that law enforcement personnel draw upon such justifications indiscriminately

across cases and that they have no predictive value on investigational effort or case outcomes. If this is the case, these justifications fail to operate as LMs via social dominance theory, are not the mechanism by which police explain their response to sexual assault, and thus provide no implications for intervention. However, if Shaw and colleagues’s (2016) justifications do predict investigational effort or case outcomes, they are LMs via social dominance theory, and interventions that intend to target and interrupt their use may improve the criminal justice system response to sexual assault.

This study had three specific aims: (a) examine the relationships between circumstantial, characterological, and investigatory blame justifications, investigational effort (i.e., number of investigative steps completed), and case outcomes in official police records to determine if and how these justifications operate as legitimizing myths; (b) examine the relationship between investigational effort and case outcomes to determine if police thoroughly investigate all cases prior to deciding the case outcome (i.e., if they will refer it to the prosecutor’s office and provide a suspect to charge); and (c) examine the impact of specific social identity factors of the victim and perpetrator (i.e., sex, race, and age) and the number of perpetrators on circumstantial, characterological, and investigatory blame justifications, investigational effort, and case outcomes to determine how these contextual elements impact the police response. Social dominance theory was used to identify the constructs and variables of interest in this study, and path analysis was used to examine the relationships between them. However, specific hypotheses regarding the nature of the relationships between these variables of interest were not generated. Because it was unknown to what extent previously identified justifications acted as legitimizing myths, it was important to examine all possible relationships between the exogenous and endogenous variables, as described below. This exploratory analytic approach was implemented in order to identify the statistical model that best represented the data.

Method

Sample

This study examined the case records corresponding to 400 unsubmitted SAKs randomly selected from a population of 10,559 SAKs found in a Midwestern, large urban police evidence storage facility in 2009 (see Pierce & Zhang, 2011 for additional detail on identifying the sample). This sample was ideal for the current study as it (a) provided a representative sample of cases that had been subjected to the less-than-thorough police response

in one jurisdiction, as indicated by each cases' corresponding unsubmitted SAK; (b) came from a predominantly Black/African-American community, which is frequently underrepresented in social science research (e.g., see Hamby, 2015); and (c) was the same sample used to create the justification typology by Shaw et al. (2016). The facility housing the unsubmitted SAKs was maintained by a municipal police agency in a Midwestern city and the 10,559 SAKs counted as of 2009 dated back nearly 30 years. Of the 400 randomly selected SAKs, police records did not exist or could not be located for 136 SAKs; 14 SAKs (and their corresponding police records when available) were not for a sex crime; and two SAKs corresponded to sexual assaults that occurred outside of the focal police agency's jurisdiction. This yielded a final sample size of $N = 248$ cases. There are no data to suggest that the 136 cases eliminated from this study due to the missing police records were systematically different from the 248 cases included. The focal police department moved locations at least six times over the 30 years that the cases accumulated and maintained paper records during this time. This likely resulted in the misplacement or loss of police files. Therefore, the cases excluded from the current project are assumed to be missing at random.

Procedure

Police records were coded by four coders for investigative steps taken by police, case outcomes, and the age, race, and sex of the victim and perpetrator(s). To ensure inter-coder reliability for the investigative steps and case outcomes, all coders were provided coding instructions, the codebook, training, and ongoing supervision. All coders used the codebook to code $N = 6$ randomly selected police reports as a group. Twelve additional police reports were double coded during the training phase and achieved a training kappa = 0.78. Thirty percent of the remaining uncoded cases (i.e., 69 of the remaining 230 cases) were double coded and monitored to maintain reliability of kappa > 0.80, with a final kappa for investigative steps and case outcomes = 0.95. Justifications (i.e., suspected legitimizing myths) were identified via directed and conventional content analyses in a related study (Shaw, Campbell, Cain & Feeney, 2016).

Measures

Number of Circumstantial, Characterological, and Investigatory Blame Justifications (Endogenous Variables)

In a related study Shaw et al., 2016, each case file was read for evidence of each of the circumstantial,

characterological, and investigatory blame justifications listed in Table 2 and coded as present (1) or not (0). The justifications in each category were then summed to produce three count variables for each case file: the number of circumstantial justifications endorsed (observed range 0–4 myths; $M = 0.36$ myths; $SD = 0.717$), the number of characterological justifications endorsed (observed range 0–3 myths; $M = 0.23$ myths; $SD = 0.560$), and the number of investigatory blame justifications endorsed (observed range 0–3 myths; $M = 0.47$ myths; $SD = 0.616$). Sixty-three cases (25.4%) had at least one circumstantial justification; 42 cases (16.9%) had at least one characterological justification; and 102 cases (41.1%) had at least one investigatory blame justification. There were no missing data on these variables.

Number of Investigative Steps (Endogenous Variable)

Each of the investigative steps listed in Table 3 was coded as present (1) or not (0). The steps were then summed to produce a count variable of the total number of investigative steps taken on each case (observed range 0–9 steps; $M = 3.38$ steps; $SD = 1.93$). There were no missing data on this variable.

Case Outcome (Endogenous Variable)

Case outcomes were coded into one of four categories: (a) a suspect was arrested and the case was referred to the prosecutor (i.e., arrest and referral; $N = 68$ cases; 27.4%); (b) no arrest was made, but the case was referred to the prosecutor (i.e., no arrest and referral; $N = 19$ cases; 7.7%); (c) a suspect was arrested, but the case was not referred to the prosecutor (i.e., arrest and no referral; $N = 12$ cases; 4.8%); or (d) no arrest was made and the case was not referred to the prosecutor (i.e., no arrest and no referral; $N = 149$ cases; 60.1%). Case outcome was a nominal variable with the fourth category—no arrest and no referral—used as the reference category for analysis. There were no missing data on this variable.

Victim and Perpetrator Factors (Exogenous Variables)

Seven victim and perpetrator variables were examined: victim sex, perpetrator sex, victim race, perpetrator race, victim age, victim and perpetrator age difference, and multiple perpetrators.¹ The coding schemes and descriptive statistics for these variables are provided in Table 4.

¹ These variables were included in this study as they are suggested to be of particular relevance in SDT. A full discussion of their selection over other possible variables is beyond the scope of this manuscript; see Shaw, 2014.

Table 2 Circumstantial, characterological, and investigatory blame justifications

	Coding scheme
Circumstantial justifications	
Victim is lying	<p>0 = Records did not note that the victim is exaggerating, lying, and does not call into question the victim's story (e.g., if it "lines up" or seems plausible)</p> <p>1 = Records noted that the victim is exaggerating, lying, or calls into question the victim's story (e.g., if it "lines up" or seems plausible)</p>
Victim is not injured	<p>0 = Records did not note that the victim did not have bruises, marks, injuries, or appeared disheveled</p> <p>1 = Records noted that the victim did not have bruises, marks, injuries, or appeared disheveled</p>
Victim consented	<p>0 = Records did not make any mention of consent or noted that the victim did not consent to the sexual activity</p> <p>1 = Records noted that the victim consented to part or all of the sexual activity with the perpetrator on this occasion, or on previous occasions</p>
Victim is not upset	<p>0 = Records did not make any mention of the victim's emotional demeanor, or noted that the victim was upset, distraught, or exhibited emotions that would be expected given the circumstance</p> <p>1 = Records noted that the victim did not appear upset or distraught, seemed distracted, or exhibited emotions that would be unexpected given the circumstance</p>
Victim did not act like a victim afterward	<p>0 = Records did not make mention of how the victim's actions following the assault were unexpected given the circumstance</p> <p>1 = Records noted that the victim's actions following the assault were unexpected given the circumstance</p>
Characterological justifications	
Victim is a regular drug user	<p>0 = Records did not note the victim is drunk/high when interacting with law enforcement personnel or is a regular drug user</p> <p>1 = Records noted that the victim is drunk/high when interacting with law enforcement personnel or is a regular drug user</p>
Victim is a sex worker	<p>0 = Records did not note that the victim is a sex worker (e.g., a prostitute, a "deal gone bad," "on the street," etc.)</p> <p>1 = Records noted that the victim is a sex worker (e.g., a prostitute, a "deal gone bad," "on the street," etc.)</p>
Victim has "done this before"	<p>0 = Records did not note that the victim has previously "done this before." "This" refers to reporting a rape (and in some cases not participating in the ensuing investigation), being raped, and/or having a rape kit done</p> <p>1 = Records noted that the victim has "done this before." "This" refers to reporting a rape (and in some cases not participating in the ensuing investigation), being raped, and/or having a rape kit done</p>
Victim is "mental"	<p>0 = Records did not note that the victim is "mental" or has a mental illness</p> <p>1 = Records noted that the victim is "mental" or has a mental illness</p>
Victim is promiscuous	<p>0 = Records did not note that victim is promiscuous</p> <p>1 = Records noted that the victim is promiscuous</p>
Victim is not credible	<p>0 = Records did not note that victim is not credible or has a history of lying (separate from lying about the specific assault reported)</p> <p>1 = Records noted that the victim is not credible or has a history of lying (separate from lying about the specific assault reported)</p>
Investigatory blame justifications	
Victim is uncooperative	<p>0 = Records did not note that the victim was uncooperative, hostile, or intentionally withholding information</p> <p>1 = Recorded noted that the victim was uncooperative, hostile, or intentionally withholding information</p>

Table 2. Continued

	Coding scheme
Victim does not have enough information	0 = Records did not note that victim did not have or could not remember enough information 1 = Records noted that the victim did not have or could not remember enough information (e.g., did not know the name of her rapist)
Victim has no phone/address for contact	0 = Records did not note a problem in contacting the victim 1 = Records noted that law enforcement personnel did not have a working phone number or address for the victim, or were otherwise unable to contact the victim
Victim or case is weak	0 = Records did not record that the victim or case was weak or incompetent 1 = Recorded noted that the victim or case was weak or incompetent

Table 3 Investigative steps summed to produce “number of investigative steps” variable

Investigative step	Coding scheme
Evidence technicians at scene	0 = No documentation of evidence technicians arriving at the crime scene 1 = Documentation of evidence technicians arriving at the crime scene as indicated by an “evidence tech report,” in “scene investigation” notes, or as indicated in the initial report
Photographs at scene	0 = No photographs from the scene of the crime 1 = Photographs from the scene of the crime
Canvassed	0 = No completed canvass sheets or other documentation in the initial report that investigators/police canvassed the area 1 = Completed canvass sheets or other documentation in the initial report that investigators/police canvassed the area
Progress notes	0 = No progress notes appear 1 = At least one progress note was recorded in the file as recorded on the “progress notes” document
Victim statement	0 = No victim statement (in a transcript format) 1 = Statement from the victim (in a transcript format)
Witness statement	0 = No witness statement (other than the victim) 1 = Statement from the witness (other than the victim)
SAK to lab	0 = No lab request form or lab report for processing of the SAK 1 = Lab request form or lab report for processing the SAK
Medical release form	0 = No completed medical release form (i.e., signed by victim or guardian) 1 = Completed medical release form (i.e., signed by victim or guardian)
Suspect lineup	0 = No documentation of a suspect lineup 1 = Documentation of a suspect lineup, as indicated by the “showup and/or lineup” file or written in the case notes (i.e., initial report or progress notes)
Suspect interview	0 = No documentation of a suspect interview (including if the suspect refused to provide an interview) 1 = Documentation of a suspect interview (or the suspect refusing to provide an interview), as indicated by the “interrogation record” or in the case notes (i.e., initial report or progress notes)

Analysis

Path analysis was used to examine the number of characterological, circumstantial, and investigatory blame justifications as predictors of the number of investigative steps taken in each case and the final case outcome; the relationship between the different types of justifications; the relationship between the number of investigative steps and the final case outcome; and the impact of victim sex, perpetrator sex, victim race, perpetrator race, victim age, victim and perpetrator age difference, and multiple

perpetrators on these variables. To identify the statistical model that most adequately represented the observed data, all relationships as described were free to be estimated using maximum-likelihood estimation with robust standard errors (MLR) in MPlus Version 7.11 software (Muthén & Muthén, 1998–2012). This initial model included variables with limited variance that prevented convergence and were trimmed from the model. This resulted in a revised model that did not include victim sex (96% of the victims were female) or perpetrator sex (100% of the perpetrators were male). Assessment for model fit, as

Table 4 Coding scheme and descriptive statistics for victim and perpetrator factors

Variable	Coding scheme	Additional notes
Victim sex (binary)	0 = female ($N = 237$; 95.6%) 1 = male ($N = 11$; 4.4%)	Sex, like all other variables in the current study, was extracted/coded from police records. The sex recorded reflects how police perceived the victim and how that perception then influenced their investigative response. It is possible that the sex recorded does not align with the victim's gender identity. No transgender victims were recorded in police records
Perpetrator sex (binary)	0 = female ($N = 0$; 0%) 1 = male ($N = 248$; 100%)	In the case of multiple perpetrators, the sex of the first perpetrator listed was recorded. See prior note regarding how sex was coded
Victim race (binary)	0 = of color ($N = 215$; 86.7%) 1 = White ($N = 33$; 13.3%)	All but one victim of color were Black/African-American. It is important to keep in mind that race, like all other variables in this study, was extracted/coded from police records. Therefore, the race recorded does not reflect how the victim might self-identify.
Perpetrator race (binary)	0 = of color ($N = 229$; 92.3%) 1 = White ($N = 14$; 5.6%) 999 = Missing ($N = 5$; 2.0%)	The race recorded reflects how police perceived the victim and how that perception then influenced their investigative response In the case of multiple perpetrators, the race of the first perpetrator listed was recorded. All but one perpetrator of color were Black/African-American. See prior note regarding how race was coded
Victim age (nominal—dummy)	0 = <16 years old ($N = 66$; 36.6%) 1 = 16–25 years old ($N = 96$; 38.7%) 2 = 26+ years old ($N = 86$; 34.7%)	Victim age ranged from 2 to 81 years old ($M = 23.36$; $SD = 11.46$). The categories for analysis were created based on the age of consent in the state in which this study was conducted and prior literature. The first category (i.e., victims 15 years old or younger) included cases corresponding to victims that could not legally consent to sex in the focal state (i.e., the age of consent in the focal state is 16 years old). The second category (i.e., victims 16–25 years old) included cases corresponding to victims that have been identified in prior literature to be deemed less credible by law enforcement personnel as compared with younger and older victims (Heenan & Murray, 2006; Kelly et al., 2005; LaFree, 1981; Rose & Randall, 1982; Spohn & Spears, 1996; Triggs et al., 2009). The third category (i.e., victims 26 years old or older) included all other cases in the sample. Cases involving victims under 16 years old served as the reference category as these cases
Victim and perpetrator age difference (nominal—dummy)	0 = perpetrator's age within 5 years of victim's age ($N = 95$; 38.3%) 1 = perpetrator more than 5 years older than victim ($N = 102$; 41.1%) 2 = perpetrator is more than 5 years younger than victim ($N = 25$; 10.1%) 999 = Missing ($N = 26$; 10.5%)	involved victims that could not legally consent to sex On average, perpetrators were 5.7 years older than the victim ($SD = 11.87$), though this ranged from the perpetrator being 47 years younger than to 53 years older than the victim. (%). In the case of multiple perpetrators, the age of the first perpetrator listed was used to calculate the age difference between the victim and the perpetrator. Cases with victim and perpetrator ages within 5 years of one another were used as the reference category
Multiple perpetrators (binary)	0 = single perpetrator 1 = multiple perpetrators	N/A

described below, began with this model. Cases with missing data on any of the included variables were excluded from analysis (i.e., listwise deletion). There were missing data on perpetrator race ($N = 5$ cases) and perpetrator age ($N = 26$ cases). Models that included either of these two variables had smaller sample sizes; the sample sizes for each model tested are included in Results section.

To identify the best-fitting, most parsimonious solution and conserve statistical power, nonsignificant *variables*

(i.e., variables that did not have a significant relationship with any other variables in the model) were trimmed from the model first, followed by trimming nonsignificant *relationships*. Each time a variable or relationship was removed from the model (i.e., the variable or specific relationship was constrained), change in model fit was assessed using the Bayesian information criterion (BIC), and the model with the lower BIC was selected to move forward in analysis (Barrett, 2007; Bollen, 1989; Bollen,

Harden, Ray & Zavisca, 2014; Byrne, 2012; Krueger et al., 2002; Raftery, 1995; Schreiber, Nora, Stage, Barlow & King, 2006). This process continued to produce a model in which only significant relationships were included.

Results

The entire model-building process is described here; however, only the results for the final model will be presented and explained. First, the full model (i.e., Model 1), with all five exogenous variables predicting all five endogenous variables, as well as the endogenous variables predicting one another, was tested. Twenty-seven cases were excluded from analysis as data were missing on the race of the perpetrator or on the victim and perpetrator age difference, bringing the sample size for analysis to $N = 221$ and producing a model with $BIC = 2516.961$. Missing data on the victim and perpetrator age difference were responsible for 22 cases being excluded; this variable was also non-significant in the model. Therefore, Model 2 constrained the relationship between victim and perpetrator age and all other variables in the Model to zero. The sample analyzed in Model 2 was restricted to the same $N = 221$ cases used in Model 1 so that the model BICs could be compared to one another. Model 2 produced a $BIC = 2454.963$. Given a BIC change of over 10, there was very strong evidence that Model 2 provided a better fit than Model 1 (see Barrett, 2007; Bollen, 1989; Bollen et al., 2014; Krueger et al., 2002; Raftery, 1995), supporting the exclusion of victim and perpetrator age difference from the model and allowing cases that had previously been excluded due to missingness on this variable alone ($N = 22$) to be included in the analysis (i.e., not subject to listwise deletion).

Model 3 imposed the same constraints as Model 2 and allowed the full sample to be included in analysis. Five cases were excluded from analysis as data were missing on the race of the perpetrator only bringing the sample size for analysis to $N = 243$ and producing a model with $BIC = 2679.010$. All of the variables in Model 3 had at least one significant relationship with other variable(s) in the model. Model 4 then constrained all nonsignificant relationships in Model 3 to be zero and resulted in a $BIC = 2527.270$ providing very strong evidence that Model 4 is a better fit than Model 3. Not all relationships entered into Model 4, however, remained significant. Specifically, perpetrator race no longer had significant relationships with any other variables in the model. Model 5 then constrained all nonsignificant relationships in Model 4 to be zero and resulted in a $BIC = 2516.384$, again providing very strong evidence that Model 5 is a better fit than Model 4. In addition, the improvement in fit

and parsimony supported the exclusion of perpetrator race from the model and allowed cases that had previously been excluded due to missingness on perpetrator race ($N = 5$) to be included in the analysis (i.e., not subject to listwise deletion).

Model 6 imposed the same constraints as Model 5 and allowed the full sample to be included in analysis. There were no missing data for any variables included in this model, providing the full sample size of $N = 248$ and producing a model with $BIC = 2569.235$. Model 6 was selected as the final model. Figure 1 depicts this model with corresponding regression coefficients. All of the regression coefficients presented in Fig. 1 were significant at $p < .05$. Table 5 provides the regression coefficients for predictive relationships between the exogenous and endogenous variables in the final, trimmed model. Standardized regression coefficients are not provided because they are not available for models with count or nominal predictor variables (Muthén & Muthén, 1998–2012).

Aim 1 of this study was to examine the relationships between the different types of justifications, investigational effort, and case outcomes. Significant associations were found among the different types of justifications. With each additional circumstantial justification documented in the police report (e.g., victim is not upset enough), a case was likely to have significantly more characterological justifications (e.g., victim is a sex worker), as indicated by the positive parameter estimate in Fig. 1 and Table 5 ($b = 0.524$, $p = .000$). The single-headed arrow drawn from circumstantial justifications to characterological investigations indicates that the latter was regressed onto the former. However, neither the research design nor existing literature provides justification for this to be interpreted as a causal relationship. Therefore, this was interpreted as an association with no assumption as to which justification preceded the other. Each additional circumstantial justification documented in the police report (e.g., victim is not upset enough) also significantly increased the number of investigatory blame justifications documented in the police report (e.g., victim is uncooperative), as indicated by the positive parameter estimate in Fig. 1 and Table 5 ($b = 0.327$, $p = .001$). Circumstantial justifications were interpreted to precede investigatory blame justifications as they frequently followed this temporal sequence in the police reports. For example, the report would state that the victim was not upset enough (circumstantial justification) before stating that the victim was unable to be contacted (investigatory blame justification).

The number and type of justifications provided then went on to predict investigational effort and case outcomes. With each additional characterological justification documented in the police report (e.g., victim is a sex

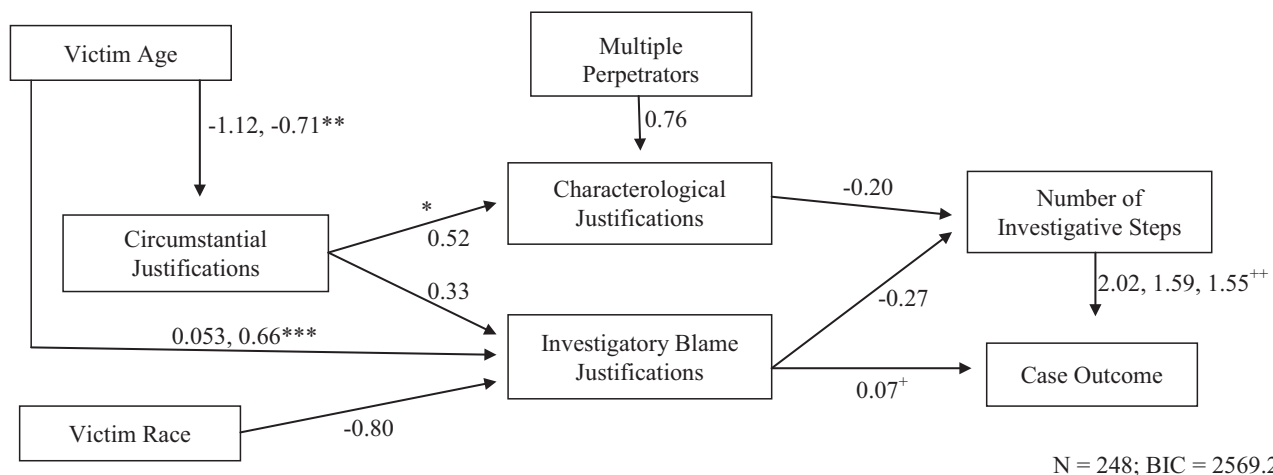


Fig. 1 Final model with regression coefficients and odds ratios. *An association, not a causal relationship; **cases with victims aged 0–15 years old were used as the reference category. Cases with victims aged 16–25 years old and 26 years or older were significantly less likely ($b = -1.12, p = .000$; $b = -0.71, p = .016$, respectively) to have circumstantial LMs endorsed as compared with cases with victims aged 0–15 years old; ***Cases with victims aged 0–15 years old were used as the reference category. Cases with victims aged 16–25 years old and 26 years or older were significantly more likely ($b = 0.53, p = .021$; $b = 0.66, p = .009$, respectively) to have investigatory blame LMs endorsed as compared with cases with victims aged 0–15 years old. ⁺This value is an odds ratio for predicting that a case resulted in an arrest and a referral, as compared with cases that had no arrest and no referral. These myths did not significantly predict just an arrest (and no referral) or just a referral (and no arrest) as compared to cases that had no arrest and no referral to the prosecutor; ⁺⁺These values are odds ratios for predicting that a case resulted in (a) an arrest and a referral, (b) no arrest and a referral, and (c) an arrest and no referral, respectively, as compared to cases that had no arrest and no referral. The number of investigate steps significantly predicted all three case outcomes.

Table 5 Regression coefficients from the final model

	Circumstantial justifications		Characterological justifications		Investigatory blame justifications		Number of investigative steps		Case outcome: arrest and referral ^{a, b}	Case outcome: no arrest and referral ^{a, b}	Case outcome: arrest and no referral ^{a, b}
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	Odds ratio	Odds ratio	Odds ratio
Victim age: 16–25 years old ^c	−1.117	.297	0 ^d	—	0.534	.232	0 ^d	—	0 ^d	0 ^d	0 ^d
Victim age: 26+ years old ^c	−0.707	.294	0 ^d	—	0.656	.250	0 ^d	—	0 ^d	0 ^d	0 ^d
Victim race	0 ^d	—	0 ^d	—	−0.802	.311	0 ^d	—	0 ^d	0 ^d	0 ^d
Multiple perps	0 ^d	—	0.755	.319	0 ^d	—	0 ^d	—	0 ^d	0 ^d	0 ^d
Circum. LMs	—	—	0.524^e	.113^e	0.327	.096	0 ^d	—	0 ^d	0 ^d	0 ^d
Char. LMs	0.524^e	.113^e	—	—	0 ^d	—	−0.200	.061	0 ^d	0 ^d	0 ^d
Invest. Blame LMs	0 ^d	—	0 ^d	—	0 ^d	—	−0.268	.059	0.070	0.500 ^f	0.937 ^f
Number invest. steps	0 ^d	—	0 ^d	—	0 ^d	—	—	—	2.016	1.587	1.547

^aReference category = cases that had no arrest and no referral to the prosecutor; ^bAll estimates for predictors of the case outcome are in odds ratios as case outcome is a nominal endogenous variable; ^cReference category = cases with victims aged 0–15 years old; ^dParameter was non-significant in previous models and constrained to zero in the final model; ^eCharacterological LMs were regressed onto circumstantial LMs; ^fThese values were not statistically significant and were included in the final model as they were necessary for dummy coding. All other values in the table were significant at $p < .05$ and are bold. However, neither the research design nor existing literature provides justification for this to be interpreted as a causal relationship. As such, this was interpreted as an association and therefore appears in two places in the table to reiterate this point.

worker), the case was likely to have significantly fewer investigative steps completed, as indicated by the negative parameter estimate in Fig. 1 and Table 5 ($b = -0.200$,

$p = .001$). With each additional investigatory blame justification documented in the police report (e.g., victim is uncooperative), the case was likely to have significantly

fewer investigate steps, as indicated by the negative parameter estimate in Fig. 1 and Table 5 ($b = -0.268$, $p = .000$). The likelihood of an arrest and referral also significantly decreased with each additional investigatory blame justification, as indicated by the odds ratio of 0.07 in Fig. 1 and Table 5 ($p = .002$). However, as is shown in Table 5, investigatory blame justifications did not predict the other two categories of possible case outcomes: no arrest and referral ($OR = 0.500$, $p = .178$) or arrest and no referral ($OR = 0.937$, $p = .904$).

Aim 2 of this study was to examine the relationship between investigational effort and the final case outcomes. The number of investigative steps predicted all possible case outcomes with each additional step increasing the likelihood of arrest, referral, or both. As can be seen in the odds ratios provided in Fig. 1 and Table 5, each additional investigative step increased the likelihood of an arrest and a referral ($OR = 2.016$, $p = .000$), only a referral ($OR = 1.587$, $p = .000$), or only an arrest ($OR = 1.547$, $p = .023$).

Finally, Aim 3 of this study was to examine the impact of specific social identity factors of the victim and perpetrator (i.e., sex, race, and age) and the number of perpetrators on the types of justifications provided, investigational effort, and case outcomes. Cases in which the victims were 16–25 years old and cases in which the victims were over the age of 25 had significantly fewer circumstantial justifications (e.g., victim is not upset enough) as compared with victims under 16 years old ($b = -1.117$, $p = .000$; $b = -0.707$, $p = .016$, respectively). This is indicated by negative parameter estimates in Fig. 1 and Table 5, in which cases involving victims under the age of 16 were used as the reference category. In addition, cases in which the victims were 16–25 years old and cases in which the victims were over the age of 25 had significantly more investigatory blame justifications (e.g., victim is uncooperative) as compared with victims under 16 years old ($b = 0.534$, $p = .021$; $b = 0.656$, $p = .019$, respectively). This is specified by positive parameter estimates in Fig. 1 and Table 5, with cases involving victims under the age of 16 as the reference category. Cases with White victims had significantly fewer investigatory blame justifications (e.g., victim is uncooperative) as compared with cases with victims of color ($b = -0.802$, $p = .010$). Figure 1 and Table 5 show this relationship with negative parameter estimates. Finally, cases with multiple perpetrators had significantly more characterological justifications (e.g., victim is uncooperative) as compared with cases with a single perpetrator ($b = 0.755$, $p = .018$), as indicated by positive parameter estimates in Fig. 1 and Table 5.

Discussion

Prior social science literature has documented the criminal justice system's less-than-desired response to sexual assault. However, not all cases slip through the cracks—prior research has found that how cases progress through the criminal justice system varies depending on specific factors of the victim and assault. The purpose of this study was to identify the mechanisms or processes by which police explain and justify their response to sexual assault. Once identified, these mechanisms can be targeted as levers for change. Table 6 summarizes the key findings from this study.

Of particular interest was investigating the relationships between the different types of justifications previously documented by Shaw and colleagues and investigatory effort and case outcomes, in order to determine if these justifications functioned as legitimizing myths (i.e., Aim 1)—the mechanism by which institutional discrimination is supported and reinforced (Sidanius & Pratto, 2001, 2011). In this study, justifications provided by law enforcement in the police records predicted the number of investigational steps completed on cases, as well as case outcomes. This indicates that these justifications, suspected to be legitimizing myths, were confirmed as such. However, these confirmed legitimizing myths (LMs) were not equally influential. Investigatory blame LMs (i.e., that blame the victim for a less-than-thorough investigation by, for example, calling the victim uncooperative) were the only LMs that directly predicted the case outcome; this type of LM also had *indirect* influence on the case outcome, via the number of investigative steps completed. This means that cases with more investigatory blame had significantly fewer investigative steps completed and were then significantly less likely to proceed forward to the prosecution stage of the criminal justice system process. However, because investigatory blame also directly predicted the case outcome, it did not always matter how many investigative steps were completed on a case; even if a sexual assault case had all possible investigative steps completed, if police stated that the victim was uncooperative, weak, or incompetent, did not have enough information, and/or did not have a phone or address for contact, the case was significantly less likely to be referred to the prosecutor's office and have an associated arrest. Circumstantial and characterological LMs also impacted the case outcome, though their influence was always *indirect* via the number of investigative steps completed and/or the number of investigatory blame LMs endorsed. Therefore, the investigatory blame LM was particularly damaging in that once an investigatory blame LM was endorsed on a

Table 6 Summary of key findings

How do justifications relate to one another?	As the number of circumstantial justifications increase, so do the number of characterological justifications and investigatory blame justifications
How do justifications predict the police response?	As more characterological and investigatory blame justifications are provided, the number of investigative steps completed decreases; AND As fewer investigative steps are completed, the case is less likely to have an arrest, a referral, or both; BUT As more investigatory blame justifications are provided, the likelihood of an arrest and referral decreases, regardless of the number of investigative steps completed
How do the justifications provided and the police response vary across cases?	Cases involving victims of color (largely Black victims in this sample, as identified by police) are likely to have more investigatory blame justifications as compared with White victims, meaning (a) they are likely to have fewer investigative steps completed and ultimately less likely to have an arrest, a referral, or both; and (b) they are less likely to have an arrest and a referral, regardless of the number of investigative steps completed. Cases involving multiple perpetrators are likely to have more characterological justifications as compared with cases involving a single perpetrator, meaning the case is likely to have fewer investigative steps, and ultimately less likely to have an arrest, a referral, or both. Cases involving victims under the age of consent are likely to have more circumstantial justifications as compared with victims over the age of consent, meaning (a) the case is likely to have more characterological justifications, leading to fewer investigative steps completed, and ultimately being less likely to have an arrest, a referral, or both; (b) the case is likely to have more investigatory blame justifications, leading to fewer investigative steps completed and ultimately being less likely to have an arrest, a referral, or both; and (c) the case is likely to have more investigatory blame justifications, decreasing the likelihood of an arrest referral, regardless of the number of investigate steps completed. Cases involving victims over the age of consent are likely to have more investigatory blame justifications compared with victims under the age of consent, meaning (a) the case is likely to have fewer investigative steps completed and ultimately less likely to have an arrest, a referral, or both; and (b) the case is less likely to have an arrest and referral, regardless of the number of investigate steps completed
What does this mean for practice and policy?	Practitioners, policymakers, and researchers cannot change the race or age of victims, or the number of perpetrators involved in an assault. These findings suggest such factors do not need to be changed, as the justifications provided and number of investigative steps completed always mediate the relationship between these factors and the outcome of the case. It is <i>possible</i> to target and change these mediating mechanisms

case, the likelihood that the case would move forward to prosecution dropped to just 7%.

Overall, while the specific relationships between the different types of LMs and the case outcomes were nuanced, they all in some way predicted the likelihood that a case would move onto the prosecution stage of the criminal justice system; as the number of LMs increased, the likelihood that the case would be referred to the prosecutor and have an associated arrest decreased. These LMs operated as predicted by social dominance theory to justify the criminal justice system response to sexual assault (Sidanius & Pratto, 2001, 2011). Police provided explanations for their response to sexual assault by stating that the reported offense was not really rape given the specific circumstances of the assault, the characteristics of the rape victim, or by blaming the victim for law enforcement personnel's less-than-thorough investigation. When interpreted in the context of social dominance theory, these LMs explain how police justify their response, as well as why—to maintain group-based social hierarchy.

The significant relationship between the number of investigate steps completed on a case and the case outcome provides additional insight into understanding the police response to sexual assault (i.e., Aim 2). If a thorough investigation was conducted on every sexual assault

case prior to police deciding the case outcome, there should have been no relationship between these two variables. However, the opposite was found in that with each additional investigative step completed on a case, the case was one-and-a-half times more likely to have only an arrest or only a referral, and twice as likely to have both an arrest and a referral. This suggests that police decide on a case outcome prior to conducting a thorough investigation and completing all possible investigative steps. Prior research has found that cases are more likely to be referred to the prosecutor's office when additional evidence has been collected (Campbell et al., 2009). However, this study suggests that causation flows in the opposite direction; police decide which cases should continue onto the prosecution stage and then complete additional investigative steps to prepare it for referral.

Prior research has documented the influence of specific victim, perpetrator, and assault characteristics on sexual assault case progression. Aim 3 intended to examine *how* a select set of victim and perpetrator variables have their impact, as the age or race of the victim is not a cause in of itself, it is a marker or trigger for some unknown process or mechanism (see Hamby, 2015). None of the specific variables examined significantly predicted investigatory effort or case outcomes directly. However, the age of the

victim, race of the victim, and whether the case involved multiple perpetrators significantly predicted LM endorsement. This finding is particularly insightful as it suggests that the LMs examined in this study are that mechanism.

Specifically, cases with victims under the age of consent had significantly more circumstantial LMs endorsed (e.g., the victim is not upset), whereas victims over the age of consent had significantly more investigatory blame LMs endorsed (e.g., the victim is uncooperative). This suggests that something changes in how police explain their response to sexual assault once the victim is old enough to legally consent to sex. Police seem to shift their emphasis from justifying inaction by denying a rape happened (e.g., because he/she was not upset enough) to blaming the victim for being unwilling and/or unable to participate in the subsequent investigation (e.g., because he/she was uncooperative). This shift in police explanations for case outcomes is important as the investigatory blame LMs are more damaging to the case overall, meaning victims over the age of consent are less likely to proceed in the criminal justice system. These findings are consistent with prior literature documenting that cases with adolescent victims over the age of consent were less likely to have their SAK submitted to a crime lab for analysis, less likely to be referred to the prosecutor, and more likely to be classified as a false report, as compared with cases with victims under the age of consent (Campbell et al., 2012; Heenan & Murray, 2006; Kelly et al., 2005; Rose & Randall, 1982; Shaw & Campbell, 2013; Triggs et al., 2009). In fact, the significant effect of age documented in these prior studies may have been due to investigatory blame LMs. However, this association is speculative as prior studies have not examined investigatory blame explicitly.

The race of the victim was also associated with LM endorsement. This finding was surprising in the current project, given that there was limited variance in victim race; only 13% of the cases in the sample involved a White victim. Still, the rate of investigatory blame LMs endorsed on cases involving White victims was different enough from the rate on cases involving victims of color for a significant association to be detected. Specifically, cases with White victims had significantly fewer investigatory blame LMs endorsed as compared with cases with victims of color. Prior research examining the influence of victim race on the criminal justice system response to sexual assault has been mixed (Table 1). Some studies have found no effect of race (Kerstetter, 1990); some have found cases with victims of color are not taken as seriously, are more likely to be unfounded by police, and are less likely to be prosecuted (Black, 1978; Frohmann, 1991; LaFree, 1981; Reiss, 1971; Rose & Randall, 1982; Smith & Klein, 1983; Wriggins, 1983); still others have

found that cases with victims of color are more likely to have a suspect identified (though not arrested), less likely to be unfounded, and more likely to have their rape kit submitted to the crime lab for analysis (Bryden & Lengnick, 1997; Horney & Spohn, 1996; Shaw & Campbell, 2013). This study did not find a direct impact of victim race on the number of investigational steps completed or the case outcome, aligning with prior literature that has found no effect of race. However, there was an *indirect* effect of race on the number of investigational steps and case outcomes via the number of investigatory blame LMs endorsed. Law enforcement personnel were more likely to state that victims of color were uncooperative, did not have enough information, had no phone/address for contact, and/or were weak and unable to hold up as solid victims at trial. The significant effect of race in prior literature may have had less to do with the specific race of the victim and more to do with the frequency of LMs that blame the victim for the less-than-through investigative response. Again, because prior literature has not documented the observations of LM endorsements in police investigations, this cannot be known with certainty. Regardless, this finding supports the notion that “every community has multilayered cultural characteristics and diversity dynamics” that require extensive information gathering to understand them fully (Harrell & Bond, 2006).

Finally, cases with multiple perpetrators were likely to have more characterological LMs as compared with cases with a single perpetrator. Shaw and Campbell (2013) found that cases involving multiple perpetrators were less likely to have their SAK submitted to the crime lab for analysis as compared with cases with a single perpetrator. This study is consistent with these prior findings and furthermore suggests the means by which law enforcement personnel explain this differential response: victims involved in gang rapes were drug users, sex workers, had “done this before,” were “mental,” were promiscuous, or were just not credible. As such, it was not really rape, so fewer investigative steps were completed on the case (including SAK submission) and the case was less likely to move onto the prosecution stage of the criminal justice system response. It is important to reiterate that the relationships between these specific case factors and investigatory effort/case outcomes were fully mediated by the endorsement of LMs. This strengthens the mechanistic role that the LMs play in explaining how and why police respond in the way they do, as their endorsement was necessary for the identified case factors to have their influence.

Limitations

This study has several limitations. This study relied on paper records corresponding to sexual assault cases that

dated back nearly 30 years (i.e., 1980–2009). Case files could have missing information due to misplaced paperwork or a failure to record all investigative steps taken on a specific case, for example. Because this project relied on archival records, if something was not recorded, it was not able to be included in analysis. Future research should expand the methodological approach utilized in this study to include more than just archival methods focusing on police records.

Second, this study suggests that the endorsement of a specific LM predicted the number of investigative steps taken on a case and the case outcome. However, there was no way to determine causal inference. It is possible that police did not conduct a thorough investigation or decided on a case outcome due to extenuating circumstances (e.g., limited resources), and then manufactured a justification for their action and/or inaction. This study cannot state with certainty that LMs came first, followed by a decision on how to proceed with the case as opposed to a decision being made on how to proceed, and then justified via LMs. Expanding the methodological approach, for example, via police interviews, may allow us to understand what police were thinking in responding to these sexual assault cases, thus illuminating sequencing of these events. Prospective data would be particularly valuable for future research as it would allow for the development and empirical examination of serial mediation models, providing additional insight into the sequencing of constructs discussed here.

Third, this study was conducted using case records from one racially homogenous Midwestern urban city which presented limitations in variance, perhaps limiting the detection of some statistical relationships (e.g., between suspect race and the endogenous variables); it is also unknown if what has been documented in this study is comparable to other cities. Future research should attempt to replicate this study in other jurisdictions to determine if the current findings are unique to the specific context examined or consistent across locales and populations. Such research may also examine the influence of additional variables on decision-making in police investigations. For example, SDT would suggest that the race and sex of law enforcement personnel responding to each case are not as important as the officer's identification with the broader criminal justice system. That is, regardless of it, the officer is Black/African-American or White, man or woman, he or she identifies with a hierarchy-enhancing institution and thus would respond in a way that maintains the status quo. Future research could include additional variables to examine this empirically.

Finally, it is important to acknowledge that some important considerations in examining the criminal justice system response to sexual assault were simply beyond the

scope of this study. For example, adequate resources and infrastructure are necessary for a successful criminal justice system response; these variables were not included in this study, though research across disciplines suggests that the importance of adequate resources and infrastructure cannot be understated. A shared mindset that there is too much to do and not nearly enough resources to do it all is the basis of the sociocultural theory of scarcity (Fried, 1982; Kramer, 1990; Mullainathan & Shafir, 2013; Roux, Goldsmith & Bonezzi, 2012; Walsh, 1961). The influence of a perceived culture of scarcity on the criminal justice system response to sexual assault has been examined elsewhere Campbell et al., 2015 and should continue to be a consideration in future research.

Policy and Practice Implications

Despite these limitations, the current findings can be used to inform policy and practice change within the criminal justice system. In order to reduce rates of case attrition within the criminal justice system, a greater proportion of sexual assault cases would need to transition from the investigation stage, overseen by law enforcement, to the prosecution stage, overseen by the prosecutor's office. This means that more sexual assault cases would need to be referred to the prosecutor's office and have an arrestee. Of all the variables tested, only two directly predicted referral and arrest: the number of investigative steps completed on a case and the number of investigatory blame LMs endorsed. The effects of all other variables in the model had to "go through" one of these two pathways in order to impact the case outcome. If the number of investigative steps completed on a case was to increase or the number of investigatory blame LMs endorsed on a case was to decrease, the likelihood of a referral and/or arrest could increase, meaning the case would have the opportunity to progress forward in the criminal justice system. Therefore, changes to current system policies regulating sexual assault case investigations could leverage change in the rates of case attrition.

In most police agencies, a supervising officer is responsible for monitoring and signing-off on cases to ensure that progress is being made and that the investigation is thorough and accurate (Zoller, Normore & McDonald, 2014). In order to leverage the number of investigative steps completed on a sexual assault case, a policy could be implemented that a supervising officer will not sign-off on a case until all possible investigative steps have been completed and/or documented rationale is provided for any steps that have not been completed. For example, a suspect line-up is typically unnecessary in a rape case with a known offender. In such cases, the investigating officer or detective should note that the suspect line-up

was not completed for this reason, satisfying the policy requirements. In this study, an average of 3.38 steps was taken on each case, out of 10 possible steps. If supervising officers require this type of documentation on all cases prior to their sign-off, it would increase the number of investigative steps taken and potentially improve the case outcome. Some of these changes have already been implemented in jurisdictions across the country, such as legislation requiring all SAKs to be submitted to a crime lab for analysis (See National Center for Victims of Crime, 2014). Several states have even created “model investigations” or “model policies” delineating and detailing the necessary steps for a thorough victim-centered, offender-focused investigation (e.g., see Wisconsin Coalition Against Sexual Assault, 2009; North Dakota Council on Abused Women’s Services/Coalition Against Sexual Assault in North Dakota, 2011; Patrick, Murray & Burke, 2009). To ensure success, each “model policy” must become a transparent model that is shared among all law enforcement personnel in an agency and is tied to the agency’s vision (Buchanan et al., 2005). Supervising officers and leaders within the organization play a unique role in that they have the responsibility to model how the “model policy” should be used and ensure its translation to reporting officers (e.g., see Zaccaro & Banks, 2001 for a discussion of the importance of leadership in organizational change efforts.).

In order to leverage the number of investigatory blame LMs endorsed on a case, policies could be implemented that supervising officers will not sign off on a case that blames the victim for a less-than-thorough police investigation or stalled case. For example, if an investigating officer recorded that he/she tried to call the victim twice and could not locate him/her, and then took no further action on the case, the supervising officer would not sign-off. The supervising officer would require that all investigative steps are completed on the case and that the case is developed to its full potential to prepare it for referral to the prosecutor’s office. In this study, over 40% of cases had at least one investigatory blame LM endorsed. If supervising officers would not sign-off on cases providing these types of justification for no further action, it may increase the number of investigative steps completed on a case and improve the case outcome. Given the direct impact of blaming the victim for a poor police investigation on case progression, regardless of the number of investigative steps completed on a case, it is essential that explicit attention is given to the role of investigatory blame when developing and implementing policy change. Policies should state that an “uncooperative” victim or victim without a phone is an unacceptable explanation for a stalled case.

Finally, this research again highlights the critical role law enforcement personnel play in the administration of

criminal justice (e.g., see Fisher, 1993; Tasca et al., 2013). Although police are but one set of professionals within the criminal justice system, they frequently decide independently if the entire criminal justice system will have the opportunity to hold an offender accountable for his or her crime. This is perhaps too great a burden to place on a single group of professionals in the criminal justice system. Therefore, in addition to policy change within police agencies, jurisdictions should continue to develop collaborative multi-disciplinary responses in which police interact with prosecutors, and other criminal justice professionals, earlier on in the investigative process to help inform critical decision-making.

Conclusion

The criminal justice system response to sexual assault needs our ongoing attention if we are to improve it. Fortunately, the results of this study suggest specific strategies that may be implemented to change how these cases move through the criminal justice system and potentially improve a victim’s opportunity for criminal justice. Recent national attention and significant legislative changes to the criminal justice system response (see National Center for Victims of Crime, 2014) are promising. However, it is essential that researchers partner with communities in order to evaluate these new policies and practices to see if they are having their intended effects and what supports are necessary for their success. Through this work, we may be able to have our greatest impact by using science to inform practice and by investing in practice-informed research.

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